

FILE SYSTEM FOR DIGITAL PROCESSING SYSTEMS WITH LIMITED RESOURCES

Abstract

The cluster identifiers of the clusters which together store the data of a file, are retrieved and stored in a random access memory (RAM) according to a pre-specified convention (e.g., as an associative array starting at a pre-specified location of the RAM).

Due to such storing, any portion of the content of the file can be accessed quickly. The feature can be advantageously used to reduce memory space requirements. In one embodiment, a metadata processing module retrieves and stores the cluster identifiers, and other modules use the same to access the file contents according to the convention. Thus, such other modules can be implemented with fewer instructions. In addition, each of the other modules can be overlaid in the same memory space used by the metadata processing module, thereby reducing the aggregate memory space requirement.